

Title (en)
BASE MATERIAL FOR GAS DIFFUSION ELECTRODE

Title (de)
BASISMATERIAL FÜR GASDIFFUSIONSELEKTRODE

Title (fr)
MATÉRIAU DE BASE POUR ÉLECTRODE À DIFFUSION DE GAZ

Publication
EP 2999038 A1 20160323 (EN)

Application
EP 14797557 A 20140515

Priority
• JP 2013103561 A 20130515
• JP 2014062954 W 20140515

Abstract (en)
The base material for a gas diffusion electrode of the present invention comprises a nonwoven fabric containing conductive fibers that contain conductive particles at least in the inside of an organic resin, and is characterized in that a specific apparent Young's modulus of the base material for a gas diffusion electrode is 40 [MPa/(g/cm³)] or more. Since the base material contains conductive fibers that contain conductive particles at least in the inside of an organic resin, it is flexible, and as a result, a polymer electrolyte membrane is not directly damaged. Further, since the specific apparent Young's modulus is 40 [MPa/(g/cm³)] or more, which indicates a high rigidity, and swelling and shrinkage of the polymer electrolyte membrane can be inhibited, cracking of the polymer electrolyte membrane can be avoided.

IPC 8 full level
H01M 4/86 (2006.01); **H01M 4/96** (2006.01); **H01M 8/0234** (2016.01); **H01M 8/0239** (2016.01); **H01M 8/0243** (2016.01); **H01M 8/10** (2006.01); **H01M 8/1018** (2016.01)

CPC (source: EP US)
H01M 4/8605 (2013.01 - EP US); **H01M 4/8626** (2013.01 - US); **H01M 8/0234** (2013.01 - EP US); **H01M 8/0239** (2013.01 - EP US); **H01M 8/0243** (2013.01 - EP US); **H01M 2008/1095** (2013.01 - EP US); **Y02E 60/50** (2013.01 - EP)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2999038 A1 20160323; **EP 2999038 A4 20161012**; CN 105190970 A 20151223; CN 105190970 B 20171229; JP 6251737 B2 20171220; JP WO2014185491 A1 20170223; KR 20160009584 A 20160126; US 2016118669 A1 20160428; US 9685663 B2 20170620; WO 2014185491 A1 20141120

DOCDB simple family (application)
EP 14797557 A 20140515; CN 201480027353 A 20140515; JP 2014062954 W 20140515; JP 2015517131 A 20140515; KR 20157034453 A 20140515; US 201414891025 A 20140515